

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

What is claimed is:

1 Claim 1 (Currently Amended): An apparatus for closing a chamber, the chamber having a first
2 chamber housing and a second chamber housing, comprising:
3 means for forming a chamber including means for bringing the first chamber
4 housing into contact with the second chamber housing such that the chamber is
5 configured for sustaining supercritical fluid; and
6 deforming means for preventing formation of particles while the first chamber
7 housing contacts the second chamber housing, wherein the deforming means is mounted
8 on at least one of the first chamber housing and the second chamber housing such that it
9 deforms to accommodate any misalignment while the means for forming a chamber
10 operates.

1 Claim 2 (Original): The apparatus of claim 1 wherein the first chamber housing includes a first
2 interior surface defining a first cavity.

1 Claim 3 (Original): The apparatus of claim 2 wherein the first interior surface defining a first
2 cavity is sized to contain a semiconductor wafer for forming integrated circuits.

1 Claim 4 (Original): The apparatus of claim 2 wherein the second chamber housing includes a
2 second interior surface defining a second cavity.

1 Claim 5 (Original): The apparatus of claim 4 wherein the second interior surface defining a
2 second cavity is sized such that when juxtaposed with the first cavity a region thereby
3 formed is sufficiently sized to contain a semiconductor wafer for forming integrated
4 circuits.

1 Claim 6 (Original): The apparatus of claim 1 wherein the first chamber housing is mounted to a
2 structure for stabilizing the first chamber housing while the first chamber housing
3 contacts the second chamber housing.

1 Claim 7 (Original): The apparatus of claim 6 wherein the second chamber housing is driven by a
2 motivating structure, being constructed and arranged to move the second chamber
3 housing in and out of contact with the first chamber housing.

1 Claim 8 (Original): The apparatus of claim 7 wherein the motivating structure is powered by at
2 least one of a pneumatic source, a hydraulic source, a turbine, and a motor.

1 Claim 9 (Original): The apparatus of claim 7 wherein the motivating structure comprises:
2 a body defining a casing; and
3 a moveable member, being positioned in the casing and being reciprocable along
4 an axis between a first position and a second position, wherein the second chamber
5 housing contacts the first chamber housing while the moveable member is in the first
6 position, and wherein the second chamber housing is not in contact with the first chamber
7 housing while the moveable member is in the second position.

1 Claim 10 (Original): The apparatus of claim 9 wherein the deforming means comprises at least
2 one of a material between a surface of the first chamber housing and a surface of the
3 structure to which the first chamber housing is mounted, a material between a surface of
4 the second chamber housing and a surface of the motivating structure, and a material
5 between a surface of the moveable member and a surface of the casing.

1 Claim 11 (Original): The apparatus of claim 10 wherein the material comprises an abrasion
2 resistant material characterized by high impact strength and having a low coefficient of
3 friction.

1 Claim 12 (Original): The apparatus of claim 10 wherein the material comprises at least one of
2 polyether ether ketone (PEEK™), thermoplastic resin, polyolefin type resin, polyamide
3 resin, polyester resin, polyether resin, polynitrile resin, polymethacrylate resin, polyvinyl

4 resin, cellulose resin, fluorine resin and a composition of PEEK™ and at least one of
5 resins and fillers.

1 Claim 13 (Withdrawn): The apparatus of claim 1 further comprising alignment means for
2 reducing an amplitude of relative motion between the first chamber housing and the
3 second chamber housing while the first chamber housing contacts the second chamber
4 housing.

5 Claim 14 (Withdrawn): The apparatus of claim 13 wherein the alignment means comprises a
6 first chamber housing feature adapted to engage with a second chamber housing feature
7 to particularly position the second chamber while the first chamber housing contacts the
8 second chamber housing.

1 Claim 15 (Withdrawn): The apparatus of claim 14 wherein at least one of the first chamber
2 housing feature and the second chamber housing feature comprises a protrudance,
3 wherein the protrudance has a particularly shaped outer edge adapted to interfit with a
4 recess defined in at least one of the first chamber housing and the second chamber
5 housing.

1 Claim 16 (Withdrawn): The apparatus of claim 13 wherein the alignment means comprises a
2 pin-like structure located on at least one of the first chamber housing and the second
3 chamber housing and an aperture defined in at least one of the first chamber housing and
4 the second chamber housing to securely receive the pin-like structure.

1 Claim 17 (Withdrawn): The apparatus of claim 16 wherein the aperture is elongated in shape
2 and has at least one chamfered inner wall adapted to facilitate alignment of the aperture
3 with the pin-like structure.

1 Claim 18 (Withdrawn): The apparatus of claim 1 wherein at least one of the first chamber
2 housing and the second chamber housing comprises a manifold having thereon a plurality
3 of fluid outlets for distributing a process fluid.

1 Claim 19 (Withdrawn): The apparatus of claim 1 further comprising means for performing a
2 supercritical process.

1 Claim 20 (Withdrawn): The apparatus of claim 19 wherein the means for performing a
2 supercritical process comprises means for circulating at least one of gaseous, liquid,
supercritical and near-supercritical carbon dioxide in the chamber.

1 Claim 21 (Withdrawn): A method of closing a chamber, the chamber having a first chamber
2 housing and a second chamber housing, comprising the steps of:
3 a. forming a chamber including bringing the first chamber housing into contact with
4 the second chamber housing; and
5 b. preventing formation of particles while the first chamber housing contacts the
6 second chamber housing.

1 Claim 22 (Withdrawn): The method of claim 21 wherein the step of forming a chamber
2 comprises moving the second chamber housing in and out of contact with the first
3 chamber housing.

1 Claim 23 (Withdrawn): The method of claim 21 wherein the step of preventing formation of
2 particles comprises positioning a material on at least one of the first chamber housing and
3 the second chamber housing such that the material deforms to accommodate any
4 misalignment while forming a chamber.

1 Claim 24 (Withdrawn): The method of claim 23 wherein the material comprises an abrasion
2 resistant material characterized by high impact strength and having a low coefficient of
3 friction.

1 Claim 25 (Withdrawn): The method of claim 23 wherein the material comprises at least one of
2 polyether ether ketone (PEEK™), thermoplastic resin, polyolefin type resin, polyamide
3 resin, polyester resin, polyether resin, polynitrile resin, polymethacrylate resin, polyvinyl
4 resin, cellulose resin, fluorine resin and a composition of PEEK™ and at least one of
5 resins and fillers.

1 Claim 26 (Withdrawn): The method of claim 21 wherein the step of preventing formation of
2 particles comprises configuring an alignment means for reducing an amplitude of relative
3 motion between the first chamber housing and the second chamber housing while the first
4 chamber housing contacts the second chamber housing.

1 Claim 27 (Withdrawn): The method of claim 26 wherein the step of employing an alignment
2 means comprises configuring a first-chamber-housing feature to engage with a second-
3 chamber-housing feature to particularly position the second chamber while the first
4 chamber housing contacts the second chamber housing.

5 Claim 28 (Withdrawn): The method of claim 21 further comprising processing an object with a
6 fluid.

1 Claim 29 (Withdrawn): The method of claim 28 wherein the step of processing an object with a
2 fluid comprises processing a semiconductor wafer with at least one of gaseous, liquid,
3 supercritical and near-supercritical carbon dioxide.

1 Claim 30 (Withdrawn): A method of eliminating particle generation at a platen/injection ring
2 interface, comprising the steps of:
3 a. forming a platen/injection ring interface including bringing a platen into contact
4 with an injection ring; and
5 b. positioning a material on at least one of the injection ring and the platen such that
6 the material deforms to accommodate any misalignment while forming the
7 platen/injection ring interface.

1 Claim 31 (Withdrawn): A method of 30 further comprising the step of configuring an alignment
2 means for reducing an amplitude of relative motion between the platen and the injection
3 ring while the platen contacts the injection ring.

1 Claim 32 (Withdrawn): The method of claim 30 further comprising the step of processing a
2 semiconductor wafer with at least one of gaseous, liquid, supercritical and near-
3 supercritical carbon dioxide.

1 Claim 33 (New): An apparatus for closing a chamber, the chamber having a first chamber
2 housing and a second chamber housing, comprising:
3 means for forming a chamber including means for bringing the first chamber
4 housing into contact with the second chamber housing; and
5 deforming means for preventing formation of particles while the first chamber
6 housing contacts the second chamber housing, wherein the deforming means is mounted
7 on at least one of the first chamber housing and the second chamber housing such that it
8 deforms to accommodate any misalignment while the means for forming a chamber
9 operates wherein at least one deforming means is positioned to deform in a direction
10 substantially orthogonal to a chamber contact motivating force.

1 Claim 34 (New): The apparatus of claim 33 wherein the first chamber housing is mounted to a
2 structure for stabilizing the first chamber housing while the first chamber housing
3 contacts the second chamber housing.

1 Claim 35 (New): The apparatus of claim 34 wherein the second chamber housing is driven by a
2 motivating structure, being constructed and arranged to move the second chamber
3 housing in and out of contact with the first chamber housing.

1 Claim 36 (New): The apparatus of claim 35 wherein the motivating structure comprises:
2 a body defining a casing; and
3 a moveable member, being positioned in the casing and being reciprocable along
4 an axis between a first position and a second position, wherein the second chamber
5 housing contacts the first chamber housing while the moveable member is in the first
6 position, and wherein the second chamber housing is not in contact with the first chamber
7 housing while the moveable member is in the second position.

1 Claim 37 (New): An apparatus for closing a chamber, the chamber having a first chamber
2 housing and a second chamber housing, comprising:
3 means for forming a chamber including means for bringing the first chamber
4 housing into contact with the second chamber housing; and
5 deforming means for preventing formation of particles while the first chamber

6 housing contacts the second chamber housing, wherein the deforming means is mounted
7 on at least one of the first chamber housing and the second chamber housing such that it
8 deforms to accommodate any misalignment while the means for forming a chamber
9 operates wherein the deforming means comprises of polyether ether keton (PEEK™).

1 Claim 38 (New): The apparatus of claim 37 wherein the first chamber housing is mounted to a
2 structure for stabilizing the first chamber housing while the first chamber housing
3 contacts the second chamber housing.

1 Claim 39 (New): The apparatus of claim 38 wherein the second chamber housing is driven by a
2 motivating structure, being constructed and arranged to move the second chamber
3 housing in and out of contact with the first chamber housing.

1 Claim 40 (New): The apparatus of claim 39 wherein the deforming means comprises at least one
2 of a material between a surface of the first chamber housing and a surface of the structure
3 to which the first chamber housing is mounted, a material between a surface of the second
4 chamber housing and a surface of the motivating structure, and a material between a
5 surface of the moveable member and a surface of the casing.